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DOCKET FILE COPY ORIGINAL

May 8, 1998



Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington, D.C. 20554

RE: Written Ex Parte
Application by Ameritech Michigan Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, interLATA Service in Michigan, CC Docket No. 97-137

Dear Ms. Roman Salas:

AT&T provided the following documents to Jake Jennings and Joe Welch of the Common Carrier Bureau's Policy and Program Planning Division:

1) Bellcore's Software Process Evaluation Report for BellSouth Telecommunications, Inc. dated March 1998. Although the face of this document bears the legend "BellSouth and Bellcore Confidential," this document was submitted in the public record of the OSS Proceeding before the Georgia Public Service Commission, Docket No. 8354-U as exhibit WNS-3 attached to the Rebuttal Testimony of BellSouth witness William Stacy, dated March 6, 1998. This document was requested by the Commission Staff.

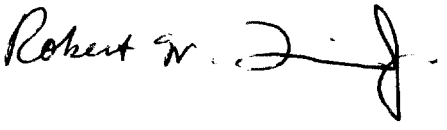
2) Portion of the Rebuttal Testimony of William Stacy in the aforementioned proceeding which describes the Bellcore Report.

3) Excerpts of the Cross-Examination of William Stacy in Docket No. 8354-U related to the Bellcore document.

4) A listing of ten significant issues regarding BellSouth's Operational Support Systems provided at the request of the Commission Staff.

Two copies of this Notice are being submitted to the Secretary of the FCC in accordance with Section 1.1206(a)(2) of the Commission's rules.

Sincerely,



Attachments

cc: J. Jennings
J. Welch

Bellcore
Bell Communications Research

Exhibit WNS-3

Special Report
**SR-4567**
Issue 1, March 1998

# BellSouth Telecommunications, Inc. Electronic Interfaces Project: Software Process Evaluation Report

Prepared for BellSouth by:
Bellcore's Quality Analysis & Registration organization.

For further information, please contact:
Samuel E. Hon III
(732) 699-7397

## SPECIAL REPORT
## NOTICE OF DISCLAIMER

This confidential Software Process Evaluation Report has been prepared by Bell Communications Research, Inc. (Bellcore) at the request of BellSouth, only for the internal use of BellSouth and Bellcore. Neither this Report nor any of its contents should be disclosed to persons other than employees of those companies.

Unless otherwise stated in the Report, this Report analyzes processes against either BellSouth's own specifications, as provided to Bellcore, or generic requirements that reflect Bellcore's view of requirements or processes that are intended to meet the needs of a hypothetical Local Exchange Carrier.

Bellcore reserves the right to revise the conclusions, substance and content of this document for any reason, including but not limited to changes in the information provided to Bellcore by BellSouth, conformity with standards promulgated by various agencies, utilization of advances in the state of the technical arts, or the reflection of changes in the design of any equipment, techniques, or procedures described or referred to herein. This document is not to be construed as a suggestion to any manufacturer to modify or change any of its products, nor does this document represent any commitment by Bellcore or any Bellcore client to purchase any product. Bellcore does not recommend products or services, and nothing contained herein is intended as a recommendation of any product or service to anyone.

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**BellSouth Telecommunications Inc. Electronic Interfaces Project :
Software Process Evaluation Report**

## TABLE OF CONTENTS

# 1. Introduction

This Special Report (SR) provides the findings of the Bellcore evaluation conducted on BellSouth's Electronic Interfaces Project on January 20, 1998. This Special Report will be used by BellSouth in conjunction with State and Federal 271 Filings and Hearings.

This evaluation was based on BellSouth's Information Technology (IT) Organization's Software Solution Process Framework (SSPF) and the Electronic Interfaces Project local procedures. The evolution and nature of the BellSouth software processes, and those that were part of Bellcore's evaluation, are outlined in Second 2 of this report. Also documented in this section is the evaluation or assessment process. The documented evaluation results are discussed in Section 3.

# 2. Software Process Descriptions

## 2.1 SSPF Description

### 2.1.1 Purpose and Scope

The purpose of instituting software processes within BellSouth was to measurably improve productivity, quality of delivered products, and predictability of project cost and schedule. Figure 2-1 depicts the three software process framework implemented by BellSouth.

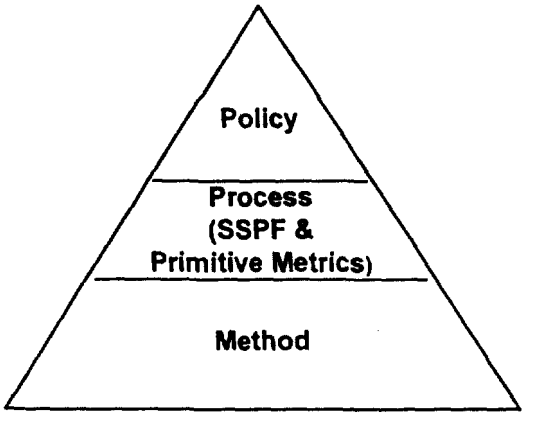


**Figure 2-1: BellSouth Software Process Pyramid**

The top layer, the Policy layer, is enforced by IT management and describes in a few sentences the operating principles of the organization.

As directed by IT policy, and represented in the middle layer of Figure 2-1, the Software Solutions Process Framework (SSPF) and Primitive Metrics (as defined in the *IT Software Metrics Handbook v2.0*) define organization-level processes that are essential for the successful management and control of software projects.

The SSPF is an evolving framework that is represented by a very "thin layer" of processes. In this version, the SSPF is not intended to be prescriptive; instead, it describes the "what" of software projects and not the "how." As best practices are identified and adopted, they will be added to the SSPF to define more of the "how."

The SEI's Capability Maturity Model (CMM) is the foundation for the SSPF. The CMM is a five-level model from the Software Engineering Institute that BellSouth has adopted for its process improvement efforts. The SSPF is a first step toward achieving CMM Level 2. The SSPF is planned to evolve in the future to support all Level 2 practices and, ultimately, the goals of Level 3 through Level 5.

The bottom layer of Figure 2-1 depicts the Method layer. The Method layer contains both IT publications, like the *IT Project Management Handbook*, and local project procedures, such as the *STNMS Inspection Process*. Supplemental metrics, as described in the *IT Software Metrics Handbook v2.0*, are also contained within the Method layer. The SSPF was constructed to take advantage of these existing methods. Where the SSPF contradicts any method, either at the IT or local level, the SSPF supersedes that method.

The quality characteristics that the SSPF must possess are:

- Accountability – responsibility is formally assigned and knowledgeably accepted.
- Acceptability – those subject to the process understand both process and its rationale.
- Auditability – compliance can and will be determined objectively.
- Appropriate flexibility – consistency of approach is sought where possible, local solutions are supported where appropriate.
- Continuous improvement – organizational learning becomes the norm.

### 2.1.2 Compliance Guidelines

All projects must comply with the SSPF. As a minimum, software releases must be planned and managed as projects. Phase-level SSPF compliance must be applied either at the release level or the work request level, as appropriate to meet the project's needs. To comply, the project must be able to demonstrate to an SSPF auditor that the project has performed the activities and steps as defined in the SSPF.

An audit schedule will be followed with emphasis on those projects that have not yet demonstrated compliance. Audit results are reported using the SSPF Audit Procedures. Once a project demonstrates compliance, audits will become less frequent.

Demonstration of compliance is provided by the project team to the auditors through a review of work products defined as:

- Entry criteria and exit criteria for activities,
- Process records of the activity, such as meeting minutes and review sheets,
- Information from interviews.

For the purpose of the SSPF, all software work is considered to be part of a project and must comply with the SSPF. However, the SSPF does not require that all processes/procedures be created from scratch for each project, needlessly repeating standard procedures. If a project team uses documented procedures that have been used in similar projects, they can tailor those procedures for their specific project in lieu of creating unnecessary documentation. Similarly, an organization may have standard procedures that are to be followed on each project. A good example of this is configuration management. By referencing a complete set of local procedures, the amount of unique documentation that must be created for each project is greatly reduced.

For projects that have set CMM Level 2 as a goal and for other projects interested in exceeding SSPF compliance, the SSPF provides the ability to identify procedures to be followed and to add practices to those required and suggested by the SSPF, as long as the procedures/practices do not contradict the SSPF.

## 2.2 SEI Capability Maturity Model for Software

As mentioned above, the SEI's Capability Maturity Model (CMM) is the methodological foundation for the SSPF. In 1986, the Software Engineering Institute (SEI) began developing a process maturity framework to help organizations improve their software development processes. The process maturity framework description was released in 1987. Over the next four years, this framework evolved into the Capability Maturity Model for Software (CMM). The CMM for Software has standardized the notion of measuring the software process maturity of organizations. The model is intended to help software organizations improve their processes through five different levels of maturity.

### 2.2.1 Process Maturity Levels

Software process maturity defines the extent to which a specific process is defined, managed, measured, controlled, and effective. A maturity level is a well-defined evolutionary plateau toward achieving a mature software process. By defining different levels of maturity, the CMM has formed a series of building blocks that help organizations grow in process capability and maturity. Each maturity level evolves from the foundation of the preceding level. The five CMM maturity levels are as follows:

Level 1 - the Initial Level
At the Initial level, the software development environment is undefined (ad hoc) and unstable. The software processes are constantly being changed or modified as the work progresses. The software process capability at this level is unpredictable.

Level 2 - the Repeatable Level
At the Repeatable level, basic software project procedures and policies have been defined. The organizations are able to effectively utilize similar process and software engineering practices from project to project. An effective process can be characterized as practiced, documented, enforced, trained, measured, and able to improve. The software process capability at this level is disciplined because the planning and tracking of software projects is stable and repeatable.

Level 3 - the Defined Level
At the Defined level, the software engineering and management processes for developing and maintaining software are documented and implemented across the organization. The organization utilizes effective software engineering practices when standardizing its software processes, and maintains the process through an organized and controlled activity. The software process capability at this level is standard and consistent because the management and development processes are stable and repeatable.

Level 4 - the Managed Level
At the Managed level, quantitative goals for the software products and processes are established. In the organization's measurement program, both productivity and quality are measured for important software process activities. An organization-wide database is used to collect software product and process data. The software process capability at this level is predictable because the process is measured and operates within set limits.

Level 5 - the Optimizing Level
At the Optimizing level, focus within the organization is on continuous process improvement. Many of the continuous improvement activities are defined and implemented proactively to improve the organization's defined standard processes and prevent defect occurrence. Data on the effectiveness of the software processes and defect analysis is used to identify possible changes to the organization's processes and determine the feasibility of new technologies. The software process capability at this level is characterized as continuously improving.

### 2.2.2 Key Process Areas

Each maturity level of the CMM (with the exception of Level 1) is composed of a set of recommended practices in a number of Key Process Areas (KPAs) that have been shown to improve software process capability. A KPA could be viewed as a set of requirements for each maturity level. The KPAs are meant to perform collectively to achieve a set of goals for improving the overall process capability. Each KPA must be performed to achieve each maturity level.

Each KPA is described in terms of the key practices, or activities, that contribute the most to the effective implementation and utilization of the key process area. The key practices can be viewed as "what" is to be

done. Key practices are in turn organized by common features that indicate whether implementation and institutionalization of a key process area is effective, repeatable, and lasting. The common features are defined as:

- Commitment to Perform
- Ability to Perform
- Activities Performed
- Measurement and Analysis
- Verifying and Implementation.

Practices specific to a particular process are contained in "Activities Performed." General practices that apply to every KPA at every maturity level are categorized by the four remaining common features. As a whole, these four form the foundation by which the Activities Performed practices can be institutionalized.

### 2.2.3 Summary

SEI's CMM provides organizations with a methodology and indicators to characterize their software development processes and products. The objectives of the CMM processes are: to define a capability maturity framework for processes used by software organizations to develop and evolve software products, to provide a map for software process improvement, and to provide an assessment methodology for determining software process maturity.

## 2.3 Evaluation Process

The evaluation was performed in accordance with the BellSouth Extended Audit Procedures as part of the on-going process to:

- Determine whether the organization's work activities continue to address the applicable requirements as stated in the Software Solution Process Framework (SSPF) and product specific process and procedures.
- Determine whether the organization's implementation of the SSPF is being expanded.
- Identify and recognize areas of the process that are being performed well, identify opportunities for improvement, and identify nonconformances to the SSPF.

The project/organization was assessed against all processes and procedures detailed in the *Software Solution Process Framework Version 1.0* dated April 1, 1997 and the *Information Technology Software Metrics Handbook Version 2.0* dated April 1997.

The BellSouth Architecture and Standards group has the overall management responsibility for the SSPF Audit Program for all IT organizations involved in software development and maintenance.

The Manager of the SSPF Audit Group has the overall responsibility for the development and maintenance of the audit schedule. This manager is also responsible for continually monitoring the effectiveness of the Audit Program, recommending plans needed to maintain the competency of all auditors, and taking any appropriate actions to ensure that BellSouth continues to benefit from the high quality and value of the SSPF Audit Program.

For individual assessments, the Lead Assessor is responsible for producing and distributing the final evaluation report and updating the status of nonconformance items. The Extended SSPF Audit Program is further defined in the following sections. For this assessment, Bellcore performed the role of Lead Assessor.

### 2.3.1 Evaluation Preparation

Bellcore's Lead Assessor was responsible for ensuring the scope and objectives of the evaluation were met. The Lead Assessor prepared an interview schedule and fixed a date for the closing conference with BellSouth management. In addition, the Lead Assessor, in conjunction with the evaluation team, prepared a checklist as a guide for the evaluation. The checklist was designed to be consistent with the Entrance Criteria, Exit Criteria, and Process Records identified in the SSPF.

### 2.3.2 Opening Meeting

At an opening meeting, the Bellcore Lead Assessor explained the evaluation process to the BellSouth staff. The meeting provided a forum to:

- Introduce all parties associated with the evaluation.
- Explain the evaluation scope and objectives.
- Explain how the evaluation was to be conducted.
- Explain the expected output of the evaluation (e.g., positive observations, opportunities for improvement, and nonconformance items).
- Confirm the evaluation schedule.
- Answer questions/concerns from BellSouth staff.

The meeting established a rapport with BellSouth staff and set a positive tone for the remaining evaluation activities.

### 2.3.3 Conducting the Evaluation

The Bellcore Lead Assessor interviewed selected BellSouth participants individually. From the interviews, the Lead Assessor sought to record information and findings in three areas:

- Positive observations – processes and procedures that work well.
- Opportunities for improvement – areas of concern not directly traceable to the SSPF or anything which potentially could improve product quality or reduce the overall cost of quality. They do not require a formal plan of action to be developed. However, it is recommended that they be included within the corrective action plan for the benefit of the project.
- Nonconformance items to the SSPF – nonconformance items are recorded as either minor or major findings:

  Minor:
  - Isolated instances where procedures are not followed.
  - A pattern does not exist.
    Example: A particular item was not tracked.

  Major
  - A systematic pattern of non-compliance exists.
  - A major Entrance or Exit Criteria is missing.
    Examples: Issues and action items not tracked at all or requirements not baselined.

Through the use of the evaluation checklist or other mechanisms, the assessors looked for objective evidence (e.g., documentation, process records) to ensure that the project is successfully implementing and following the SSPF. All findings, both positive and negative, were recorded for discussion with the evaluation team and as input to the interim feedback sessions, closing conference, and final evaluation report.

### 2.3.4 Interim Feedback Sessions

The evaluation team scheduled interim feedback sessions with BellSouth's management and staff to discuss the progress of the evaluation. These meetings were normally scheduled at the end of each day of interviews or the beginning of the next day. At these meetings, all observations of effective processes and procedures, opportunities for improvement, and any potential nonconformances were reviewed to obtain agreement with BellSouth and to clarify any issues that may have arisen from the observations. The combined observations from all interim feedback sessions were the main input to the closing conference and the final evaluation report.

### 2.3.5 Closing Conference

The closing conference provided a summary of the evaluation for the BellSouth management and provided closure to the evaluation process. The closing conference:

- Recognized the evaluation participants.
- Summarized the processes where BellSouth is performing well.
- Summarized the areas and opportunities for improvement.
- Summarized the situation about SSPF nonconformance.
- Reviewed the corrective action/follow-up process.
- Responded to any questions from the BellSouth organization.

Throughout the evaluation process, the evaluation team provided advice on how to improve BellSouth's software development processes. Indeed, BellSouth staff were encouraged to correct situations during the evaluation, whenever possible.

# 3. The Evaluation Results

The evaluation results from the Project review are divided into two categories: positive impressions and opportunities for improvement. Positive impressions characterize the process activities that have been identified during the interview discussions that provide value in the development and implementation of the processes. Strengths within the processes and their implementation were identified as positive impressions. Opportunities for improvement characterize areas within the development and implementation that could aid in the improvement of these processes within the project.

Each evaluation result listed below is ***italicized***. For each result, additional descriptive information has been provided.

## 3.1 Positive Impressions

The following positive impressions were identified during the course of the evaluation:

- ***From within the software project team, several local processes (e.g., requirements process) have been implemented to enhance the SSPF implementation and incorporate user involvement in several phases of the lifecycle.***
  The project team has been developing several supportive processes to aid in the implementation of the SSPF and improve user involvement and communication throughout the development lifecycle.

- ***The software project team has developed enhanced definitions of test planning, including the use of expected test results, and are capturing test metrics on test case completion.***
  Test planning has been enhanced beyond the current requirements of the SSPF to include more project specific information. This has helped the project team in ensuring robust requirements coverage during the test phase of the software development lifecycle.

- ***The software project team is incorporating user input into test scenarios.***
  Test scenarios used with the software project are reviewed by the user. This allows the software project additional validation coverage during the testing phase of the software development lifecycle.

- ***The software project team utilizes a configuration management tool (€MVC) to capture change request status (e.g., pending, approved, etc.).***
  The software project team has utilized the capabilities of the configuration management tool to help with status reporting and recording of change requests against the project. This also helps the project team in addressing change requests more efficiently.

- ***There have been several improvements made in estimation processes.***
  The software project has utilized several methodologies for improving their estimation process. Historical reports and tools have helped the team provide more efficient estimations for allocation of resources.

## 3.2 Opportunities for Improvement

The following items were identified as possible opportunities for improvement. Specific action plans are not required for these items, but it is recommended that these items be reviewed, and if warranted, action plans developed to improve the implementation of the SSPF.

- ***During the requirements phase, ensure that SSPF Checklists are revisited and reviewed to capture any adjustment made in tailoring of the process throughout the lifecycle of the project.***
  Currently the SSPF checklists are tailored at the beginning of the software project. By revisiting the checklists throughout the lifecycle phases, any changes made in software planning and status can be reflected in the SSPF checklists.

- ***Ensure the implementation plan for local processes (i.e., code reviews) is fully communicated within the software project.***
  The software project team has instituted local processes that support the SSPF. Many project team members are aware of the new processes. Using a communication plan during the implementation of the local processes will aid in the notification to the entire organization.

- ***In project planning, use a pointer to a "living" (e.g., WBS, roles, etc.) aspect of the plan that may need to change through the project (to ease re-versioning).***
  By incorporating references to locations into the project plan for sections that change frequently, the project manager will reduce the number of reissues of the documented project plan.

- ***In the Configuration Management Plan, include any additional backout/recovery processes (beyond what is currently documented for the Operations Center).***
  Currently, disaster/recovery aspects of the Configuration Management Plan are focused within the Operations Center processes. The software project team should include any additional information surrounding the project in the Configuration Management Plan. This will help to ensure that all levels of disaster/recovery are documented.

- ***Ensure that each SSPF phase is completed (as planned) before starting the next phase. This will aid in meeting entrance/exit criteria of the organizational processes.***
  The software project plan has documented the lifecycle milestones and SSPF phases for the entire lifecycle. To meet the needs of each SSPF phase, the software project team needs to ensure that process records and process work products are completed according to their documented phase.

## 3.3 Nonconformances

From this evaluation, Bellcore found no major or minor nonconformances. During this evaluation, the Electronic Interfaces Project Team has shown evidence, such as knowledge of processes, process records and process work products, that comply with the SSPF processes.

# 4. Summary

Bellcore was invited by BellSouth to evaluate the Electronic Interfaces Project in accordance with BellSouth's Extended Audit Procedures. Following the evaluation process described in this report, Bellcore identified several areas of the process that are being performed well, a few opportunities for improvement, but no major or minor nonconformances to BellSouth's SSPF. From the results of this evaluation, the Electronic Interfaces Project has demonstrated the implementation and continuation of utilizing the SSPF processes within the project.

# 5. References

Capability Maturity Model for Software, SEI/ -93-TR-24, ADA263403, Version 1.1, Software Engineering Institute, Carnegie Mellon University, 1993.

Paulk, Mark C.; Curtis, Bill; Chrissis, Mary Beth; Weber, Charles V. "Capability Maturity Model, Version 1.1," IEEE Software, Vol. 10, No. 4, July 1992, pp. 18-27.

Paulk, Mark C. "A Comparison of ISO 9001 and the Capability Maturity Model for Software," Software Engineering Institute, CMU/SEI-94-TR-12, July 1994.

Paulk, Mark C. "Effective CMM-Based Process Improvement," Proceedings of the 6th International Conference on Software Quality, Ottawa, Canada, 28-31 October 1996.

## CERTIFICATE OF SERVICE

This is to certify that I have this day served a copy of the within and foregoing, upon known parties of record, by depositing same in the United States Mail with adequate postage affixed thereto, properly addressed as follows:

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This 12th day of March, 1998.

Fred McCallum Jr.

125 Perimeter Center West, Room 376
Atlanta, Georgia 30346

May 7, 1998

To: Steve Garavito
Bob Quinn

From: Sharon Norris

Attached are:

- a copy of the BellCore Software Evaluation report which is an attachment to Bill Stacy's Georgia and Tennessee testimony
- the portion of Mr. Stacy's Georgia testimony which refers to the report
- the portion of the Georgia transcript in which Mr. Stacy is cross examined by AT&T regarding the report

Attachments

**BELLSOUTH TELECOMMUNICATIONS, INC.**

**REBUTTAL TESTIMONY OF WILLIAM N. STACY**

**BEFORE THE GEORGIA PUBLIC SERVICE COMMISSION**

**DOCKET 8354-U**

**MARCH 6, 1998**

Q. PLEASE STATE YOUR NAME, ADDRESS, AND POSITION WITH BELLSOUTH TELECOMMUNICATIONS, INC.

A. My name is William N. Stacy. I am employed by BellSouth Telecommunications, Inc. (BellSouth). My business address is 675 West Peachtree Street, Atlanta, Georgia 30375. I am the Assistant Vice President - Services for the Interconnection Operations department of BellSouth Telecommunications, Inc. (BST). In this position, I am responsible for development of the procedures used by BST personnel to process Competitive Local Exchange Carrier (CLEC) service requests, and for assisting the service centers in Interconnection Operations in implementing CLEC contracts in a manner consistent with State Commissions and the Federal Communications Commission (FCC) rules and regulations governing local exchange competition. I have held numerous positions with BST in Network Engineering, Operator Services, Network Planning and Network Operations.

Q. ARE YOU THE SAME WILLIAM STACY WHO PREVIOUSLY FILED TESTIMONY IN THIS DOCKET?

Additionally, attached to my testimony is Rebuttal Exhibit WNS-1, a report from Bellcore entitled, "BellSouth Telecommunications, Inc. Electronic Interfaces Project: Software Process Evaluation Report." This report describes Bellcore's evaluation of BellSouth's software processes for the electronic interfaces, and shows that BellSouth's Electronic Interfaces have been developed in compliance with the SSPF, Software Solution Process Framework. Bellcore identified several areas of the process that are being performed well, a few opportunities for improvement, but no major or minor nonconformances to BellSouth's SSPF.

Q. PLEASE COMMENT ON MR. WHITE'S REMARK ON PAGE 3 THAT "BELLSOUTH'S INTRODUCTION OF A SERIES OF OSS INTERFACES HAS FORCED ACSI TO ADOPT A CONSERVATIVE APPROACH TO IMPLEMENTATION BECAUSE A START-UP COMPANY SUCH AS ACSI CANNOT AFFORD THE WASTED EXPENDITURES THAT RESULT FROM SUCH RAPID OBSOLESCE."

A. BellSouth's non-discriminatory interfaces for pre-ordering and repair and maintenance have been available since April, 1997. The non-discriminatory EDI interface has been available since December, 1996. In April, 1997, the non-discriminatory Harbinger EDI-PC package was made available to CLECs. None of these interfaces has become obsolete. In fact, BellSouth has constantly updated and enhanced these interfaces, in some cases - at the suggestion of CLECs - just has it constantly updates

AT&T cross examination of Stacy in Georgia OSS hearing

Q Okay. I'd like to talk now about Exhibit 3 to your rebuttal testimony.

A Yes.

Q Now, this report was prepared by Bellcore, is that correct?

A That's correct.

Q And is Bellcore the vendor that developed the EC-Lite interface and is selected to provide the API interface?

A Yes, they are.

Q So you have a working relationship with --

A They are one of our large vendors for various projects.

Q Now, turning to page 3 -- I mean three little i's.

A Yes.

QQ Could you read the first sentence on the last paragraph? Can you read that aloud, please?

A Bellcore makes no representation or warranty, expressed or implied, with respect to the sufficiency, accuracy or utility of any information or opinion contained herein.

Q So, you read that to say that Bellcore is not saying that the information contained in this report is accurate?

A No. I'm reading it as a disclaimer that one of their lawyers stuck in there.

Q Well, we are in a legal proceeding, aren't we?

A That's true.

Q So Bellcore probably wouldn't come up here and swear to this?

A No, I have every reason to believe this is an audit conducted to standards by Bellcore. I have every reason to believe that they would indeed come up here and swear to this.

Q They just wouldn't do it in writing, is that what you're saying?

A Subject to one of those many disclaimers that you all insert, yes.

Q Now, as I understand this report, Bellcore evaluated BellSouth's software solutions process framework, or what they call SSPF, is that correct?

A That's correct.

Q There's a lot of acronyms in this report.

A There are.

QQ I find it a little confusing but we will try to muddle through those.

Q Turning to page 2-2, section 2.2.

A Yes.

Q Is it true that the Software Engineering Institute or SEI developed a process maturity framework called the capability maturity model for software or CCM?

A CMM, yes.

Q I'm sorry, CMM.

A They did develop such a model.

Q And is it true that the SEI CMM is a methodological foundation for SSPF?

A Yes.

Q And is it also true that CMM for software has standardized the notion of measuring software process maturity of organizations?

A Yes, that is its goal.

Q And that model is intended to help software organizations improve their processes through five different levels of maturity, is that correct?

A That's correct.

Q And these maturity levels are identified on page 2-3 under Section 2.2.1 of this report. Is that correct?

A That's correct.

Q And level 5 is the most mature and level 1 is the least mature, is that correct?

A That's correct.

Q Could you please read aloud the description of level 1 in the initial level?

A At the initial level the software development environment is undefined (ad hoc) and unstable. The software processes are constantly being changed or modified as the work progresses. The software process capability at this level is unpredictable.

Q Now, turning back to page 2-1, under Section 2.1.1, in the second to the last paragraph, is it true that Bellcore states that BellSouth's SSPF is a first step towards achieving CMM level 2?

A That's correct. That's exactly what SSPF was designed to be.

Q So does that mean that BellSouth is still at level 1 because it has not yet achieved level 2?